

# Melting Ice Notes

- Global warming is the main contributor to melting icecaps.
- Just a half degree change in the earth's temperature can have a effect on our planet.
- In the last 100 years the sea level has risen 15 to 20 cm.
- The rising temperature is causing more icebergs to form by weakening the glaciers, this causes more cracks making the ice more likely to break off. When this happens the ocean rises a little.
- Antarctica and the south pole have 90 percent of the world ice and 70 percent of its fresh water.
- If the heat increases and the glaciers keep melting, it could have a big effect on coastal cities.
- The arctic is the most surveyed area because it is greatly affected by the climate change.
- When ice sheets extend outward to the ocean, the ice moves out over the surrounding water, forming ice shelves. There is concern that with global warming the water under the ice shelves would be warmer and cause them to break up more readily forming very large icebergs. This would lead to immense sea rise.
- The melting and growth of sea ice in contrast to land ice, does not affect sea level because the sea ice is floating on the ocean already and is in equilibrium with it.
- Melting ice caps are also very bad for penguins and polar bears. This could force them out of their homes and they would have to relocate and find a new home.

- Antarctica is losing 500 cubic kilometres of ice annually.
- an ice sheet is a mass of glacial land ice extending more than 60000 square kilometres.
- During the last ice age the sheets covered much of North America and Scandinavia.
- Ice sheets form in areas where snow that falls in winter does not melt entirely over the summer. Over thousands of years the layers of snow pile up into thick masses of ice, growing thicker and denser as the weight of snow and ice layers compresses the older layers.
- The ice sheets in Greenland and Antarctic influence weather and climate. Large high altitude plates on the ice caps alter storm tracks and create cold downslope winds close to the ice surface.
- from 1979 to 2006 summer melt on the ice sheet increased by 30 percent.
  - Since 1951 the arctic has warmed roughly twice as much as the global average.
  - In the future the unfrozen north could cause great devastation.
  - If we did not have the greenhouse effect the earths surface would be sixty degrees Fahrenheit colder.
- Rising temperatures cause more ice to break off from glaciers which fall into the ocean displacing water.
- In Bangladesh over one million people have been displaced to the rising sea and the rising rivers.
- If no action is taken it is estimated that 300 million people will lose there home
- There are about 89 species of birds that are endangered because of the melting ice caps

## Sources

<https://www.youtube.com/watch?v=hC3VTgIPoGU>

<http://climate.nasa.gov/causes/>

<http://beagreencommuter.com/how-to-calculate-your-carbon-footprint/>

<http://pixgood.com/melting-ice-caps-penguins.html>

<http://www.ecy.wa.gov/climatechange/whatis.htm>

<https://ecologicichomemakers.wordpress.com/2009/04/06/bugged-by-litter-join-the-feel-good-fall-cleanup/shorelinecleanup/>

<http://www.icebergfinder.com>